The Arboretum Bulletin

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THE ARBORETUM FOUNDATION appreciates the patience shown by all those having placed orders for the Grant book, "Trees and Shrubs for Pacific Northwest Gardens, What to Grow and How to Grow Them." The delay is entirely beyond our control and is due to war time conditions.

Unless something unforseen arises the book should be out sometime this month, and then we are sure the patience you have displayed will be amply repaid by the quality and beauty of the book.

Rose Varieties for the Northwest

(EDITOR'S NOTE: The program of the November meeting of the Seattle Rose Society produced a most interesting discussion of the garden value, for this region, of many varieties of roses. Participation in the discussion was quite general. Under the leadership of Mr. George Schnellhardt the following lists were compiled. Keep in mind that they represent the conclusions of Seattle's best rose authorities.)

RED *(Decorative)**

Christopher Stone, Etoile de Hollande, Hortulanus Budde, Southport, Texas Centennial, Mary Hart.

RED *(Exhibition)*

William Orr, Dickson's Red, Crimson Glory, Heart's Desire.

PINK *(Decorative)*

The Doctor, Comtesse Vandal, Rapture, Madame Butterfly, Shot Silk.

PINK *(Exhibition)*

William Moore, Picture, Eternal Youth, Dame Edith Helen, Mrs. A. R. Barraclough.

YELLOW *(Decorative)*

McGredy's Yellow, Eclipse, Ville de Paris, Mrs. Pierre S. duPont, Joanna Hill, Golden Pernet (Julien Potin), Golden Dawn, Sister Therese.

YELLOW *(Exhibition)*

Sam McGredy, McGredy's Yellow.

WHITE

Caledonia, Frau Karl Druschki, H. R. Darlington, Innocence, Kaiserin Auguste Viktoria, McGredy's Ivory, Madame Jules Bouche, Mrs. Herbert Stevens, Oswald Sieper, Rex Anderson.

BLENDS

Mrs. Sam McGredy, President Hoover, McGredy's Sunset, McGredy's Triumph, Autumn, Brazier, Duquesa de Peneranda, Hinrich Gaede, McGredy's Orange, Madame Henri Guillot, Saturnia, Signora.

CLIMBERS

Reveil di Jonnais (red-gold), Kitty Kininmouth (pink), Paul's Scarlet, Ruth Alexander (red-gold) Paul's Lemon Pillar (white), Elegance (ivory), Madame Gregoire Staechelin (pink), Countess of Stradbroke (deep red), Blaze (red), Emily Gray (yellow), Guinee (dark red), Mermaid (pale yellow) Mrs. Arthur Curtiss James (yellow).

SPORT CLIMBERS

(Sports of Named Bush Forms)

Shot Silk, Mrs. Sam McGredy, McGredy's Ivory, McGredy's Yellow, Charles P. Kilham, Comtesse Vandal, Etoile de Hollande, Golden Emblem, Madame Butterfly, Madame Edouard Herriot, Mrs. Pierre S. duPont, President Hoover.

POLYANTHA

Donald Prior, Karen Poulsen, Betty Prior, Folkestone, Golden Polyantha, Le Marne, Orange Triumph, Rosenelfe.

* The varieties have been listed by color and, insofar as possible, in the order of preference.

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The Care and Culture of House Plants

By STANLEY E. WADSWORTH

Instructor in Floriculture and Landscape Gardening, Department of Horticulture, Washington State College

(Continued from January Issue)

Fresh air in abundance without drafts or temperature fluctuations is needed for normal growth of most plants. Fresh air is also needed by man, but in the winter months there is a strong tendency to close the home to reduce fuel costs. Poorer living conditions for both man and plant result. As the night temperature is best held somewhat lower than the day temperature, ventilation may be done at night.

The best solution to the humidity, temperature, sunlight and ventilation problems is to build a small greenhouse where a collection of plants may be well grown. Plants may be taken from the greenhouse to the house for decorative purposes. Exchange them for others before the house conditions have injured them.

A plant room may be developed in an extra room of the house having a southern or southeastern exposure. The night temperature should be maintained at 50 to 55 degrees F. The humidity may be held at a high level. This room would be used as the greenhouse previously mentioned to supply plants for decorating the home and as a plant hospital.

The presence of minute quantities of illuminating gas in the air of the home may cause considerable damage, even the death of house plants. Careful check must be made to

ascertain that there are no leaks in pipes and that burners allow no gas to escape unburned.

Watering

The point in the care of house plants on which the greatest improvement may be made is watering. The all-too-common watering method is for the housewife to take the water remaining in the pitcher after meals and divide it evenly between the plants on the window sill, regardless of their kinds or sizes. She feels that this will suffice. Usually this amount of water moistens only the top inch of soil. It is far better to water less frequently but to water thoroughly each time by subirrigation. Allow the pots to stand in a shallow container of water until the surface soil appears to be moist. This is an indication that the pores in the soil mass are entirely filled with water. Drainage material in the bottom of the pot insures removal of excess water. Often it is suggested that adding water at the top of the pot until water appears in the saucer is just as effective. If the soil mixture is perfectly uniform, with no cracks, this may be true. This is a theoretical condition and almost never exists. There are always differences in soil texture and almost always cracks in the soil mass. The water will travel down these cracks and appear in the saucer without moistening the entire soil mass. The safe way is to subirrigate. Constant evaporation from the soil surface will leave higher concentrations of salts in the upper soil. Occasional heavy watering at the top of the pot will leach these salts from the soil.

Organic matter added to the soil at the time of preparation improves the soil texture and water holding capacity. Peat moss, leaf mold and well-rotted manure are good forms of organic matter to add. Most soils need organic matter added in proportion of one part organic matter to each two parts of soil for most plants. For ferns, a growing media should be one-half peat moss or leaf mold and one-half soil.

There are no foolproof rules for watering house plants. Not all plants need the same amount of water. Plants growing naturally in moist soils will require much more water than cacti or other plants native to dry soil regions. The needs of a given plant vary from one season to another. During the winter, when growth is slow, water should be given sparingly to avoid soggy, poorly aerated soils. A plant with a large leaf area, regardless of its actual size, requires much more water than a plant of the same kind with a small leaf area. A plant uses only a small proportion of the water it receives in growth. The larger portion is lost as vapor from the leaves. The larger the amount of foliage the greater the amount of water lost by transpiration. A moist atmosphere in the home greatly reduces the loss of water from plants and thus reduces the plants' need for water. The soil type and frequency of watering will vary the supply available to the plant and thus meet its natural water requirement.

Plants set on bare wooden or glass shelves after watering lose water rapidly by evaporation from the surface of the pot. Water may be conserved by placing the pots in a tray of moist 1-to-1 mixture of cinders or pebbles with peatmoss or sphagnum. Pots should not be set in jardinieres with water below. The water and air in the jardiniere become stagnant, an unhealthy condition for plants.

Tests show that wick watering is equal to or superior to subirrigation for plants that have a high water requirement, dry out rapidly or require a constantly moist soil for success. Knock the growing plant carefully out of the pot by inverting and striking sharply against the edge of the work bench. Then pass the wick through the hole in the pot and spread over the inside of the bottom of the pot. All drainage material is removed from the base of the soil mass and replaced with soil, thus completing the repotting operation. Then set the plant over a container filled with water into which the wick hangs. The plant receives a continuous supply of water, which travels from the wick throughout the soil mass by capillary action.

A constant but slower supply of water may be obtained by a plant in a porous clay pot by placing the pot on a porous mat which stands in a saucer of water.

Leftover tea and coffee have no value over fresh water for the pot plant. Fresh water has an oxygen content needed by the plant roots which has been removed from the tea and coffee water by boiling.

Soapy dishwater should never be used to water pot plants. It soon causes an undesirable alkaline soil reaction.

Fertilizing

Watering and fertilizing may be done in one operation by dissolving fertilizers in the regular water for watering. Many people do not fertilize their house plants. Plants may be grown in soil without adding nutrients. Some nutrient is present in the soil. The plants use this. However, to maintain healthy green foliage with good flowering over long periods of time, it is necessary to fertilize them.

Great care must be taken in applying fertilizers. Most commercial fertilizers are concentrated and will cause injury to the roots if not carefully measured. A half teaspoonful of 5-10-5 commercial fertilizer per plant in a six-inch pot is about equivalent to the suggested three pounds per 100 square feet of garden for outside fertilization. Do not use more. Reduce the amount in proportion to the volume of the pot for smaller plants.

Do not apply fertilizer to newly planted seedlings or cuttings. Their root systems are not ready to take up such rich solutions.

Fertilize only the actively growing plants. Very few, if any, plants will need fertilizer during the short dark days of December and January. The plants would not use it and it would accumulate, possibly to the point of being toxic. As the days grow longer and brighter in spring, more growth takes place and fertilizer will be utilized as added. A solution of one ounce of commercial fertilizer (5-10-5) in one gallon of water may be used for watering house plants once a month. Leaching the soil will remove excess salts in case too much fertilizer is applied.

A later article in this bulletin may include other phases of pot plant culture such as special soil preparation for certain plant groups, insect and disease control, summer care, propagation, repotting and the selection and value of various containers.

Careful control of the humidity, the temperature, the light and the ventilation, and intelligent watering and fertilization will greatly improve the appearance of plants in the home. It is then that house plants will be a source of joy rather than worry.

* * *

Garden cleanliness is one of the best means of eliminating slugs. They congregate under tufts of grass, weeds, ground cover plants and low, bushy species during the daylight hours. Also, if you resort to any hand picking method, as a supplement to the use of a good bait, you can attract many of these pests by placing half an orange or half an apple at some strategic point in the garden. The fruit attracts them and they can be easily disposed of late in the evening or very early in the morning.

A Correction

Dr. John H. Hanley,
Director, U. of W. Arboretum
Seattle, Washington
Dear Dr. Hanley:

In the article on rose culture published in the last Bulletin I must correct myself. If you feel the correction should be published please do so.

It was stated that the plants were pruned to the first good eye below a branch on BRANCHING varieties. This is in error. It should have stated: Pruned to the first good eye below a branch on varieties that grow straight and tall with little branching, such as Vierlanden and Signora.

On plants that branch lower down, from two to four branches are left on a stem, and these branches pruned back to one or more good eyes or buds, depending on the size and vigor of the branch.

I hope you will publish the correction, because if some one follows the first directions they won't have much left of their plants that start branching low.

Your bulletins are tops. And it is very helpful to have available articles dealing with our western Washington problems and desirable varieties, whether for the vegetable garden, shrubs or flowers.

Yours sincerely,
N. W. Brunswig

Notes On Two Interesting Plant Species

By Elizabeth M. Blackford

Pittosporum tobira

Some of the greatest thrills that I have had in my garden have come through the successful culture of several shrub species that one ordinarily associates with more southern climes—California and Florida. On winter trips into the southland I have always taken great joy from the beautiful trees and shrubs that grace the landscape—here as individual specimens, there in luxuriant masses, and again in hedge plantings. One shrub in particular, one which captured my attention years ago by virtue of its glossy green foliage and heavenly flower fragrance, was Pittosporum tobira, a form which unfortunately has no recorded common name.

Inquiry at one of the California nurseries revealed that the species most assuredly would withstand the Puget Sound climate, whereupon I decided to give it and several other exotic species a trial in my garden just above Lake Washington. Of all of that shipment, and succeeding ones as well, this plant, Pittosporum tobira, has proved the most satisfactory. Indeed, after several winters of success with various other uncommon shrubs, this one alone remained to live and thrive after the severe winter of 1941-1942. From the standpoint of hardiness, and in view of its many other pleasing qualities, P. tobira can be highly recommended for use in gardens of the Northwest.

The generic name Pittosporum is derived from the Greek for "pitch seed," alluding to the gummy seed coat. P. tobira seldom sets seeds with us, however, and even if it did, propagation by cuttings would still be preferred because of the wide range of variation among true seedlings.

The shrub itself, often used for hedges in California, may attain a height of ten feet. The glossy green foliage and the clusters of small, waxy, white flowers which appear here in May and June are its outstanding attributes, that is, aside from the fragrance of the blooms. The lovely fragrance resembles that of orange blossoms rather closely and it fairly fills the air over wide distances.

My plants were placed in acid soil adjacent to the front doorway. I have given them the same treatment that rhododendrons require and they have responded beautifully. All of them are now robust, broad, and spreading, with lustrous, healthy leaves. Their adaptation to our climate has been perfect. Just remember to give them plenty of water during the summer season.

Besides P. tobira's use in a spring garden, its dense, evergreen foliage would become any winter landscape. I am convinced that here is a shrub which could be of wide ornamental use for year 'round effects in our Puget Sound gardens.

Liquidambar formosana

Four years ago I purchased what I thought was a specimen of Liquidambar styraciflua, the beautiful sweet gum of southern and south-central United States. However, as the leaves developed that first spring, I realized that it was something quite different. Imagine my pleasure when I learned from Dr. Hanley that it was one of the few specimens in the Northwest of another beautiful species of the same genus (L. formosana) from China and Formosa.

L. formosana is a beautiful tree and a rapid grower. It has developed from a height of six feet to about 20 feet in four years. The foliage, which appears among the last in my spring garden, is quite dense and beautifully colored, the tips of the individual leaves becoming quite red. This color is partially carried throughout the summer season. However, the fall color is not as brilliant as that of the native sweet gum. Because of the apparent rarity of L. formosana, I am watching the development of this specimen with great interest.

* * *

Two excellent summer-flowering shrubs that can be used to advantage in Puget Sound gardens are Olearia Haasti and Cassinia fulvida. The latter has particularly colorful foliage. The stems and lower leaf surfaces are covered by a rich brown tomentum. Both these plants are unusual for another reason—they belong to the daisy family. One does not often encounter the shrubby species in this family.

* * *

For the fourth consecutive year the native dogwood (C. Nuttallii) that grows between the upper road and the head of Rhododendron Glen at the Arboretum, was in full bloom from mid-August to early September. Thus, we have additional evidence for a contention that was originally made in 1939, namely, that there are in existence different hereditary strains of these beautiful trees.

* * *

Most lawns will be maintained in much better condition if they are raked thoroughly *before* every mowing. This practice is especially to be recommended for areas which have been seeded to two or more kinds of permanent grasses. It also aids in the elimination of certain small weeds, such as chickweed, veronica and milfoil.

* * *

Rhododendron fanciers should not be overly dismayed by the temporary difficulties surrounding the importation of the English varieties from abroad. You will find an excellent collection of beautifully grown rhododendrons in your own nurseries of the Northwest. As a matter of fact, nowhere else in the United States can such a wide variety be found.

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